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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,884	03/31/2004	Rongguang Liang	87144SLP	7570

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EXAMINER	
GRANT II, JEROME	
ART UNIT	PAPER NUMBER
2625	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/814,884	LIANG, RONGGUANG	
	Examiner	Art Unit	
	Jerome Grant II	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3-04; 7-05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

1.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 4, 6-8, 10, 12, 13, 15-22, 24, 25 and being unpatentable over Cattorini in view of Hokari.

With respect to claim 1, Cattorini teaches a reading apparatus (shown by figure 1) for obtaining a line of image data stored on a surface, comprising:

A radiation source 10 for directing a line of stimulating radiation onto a stimulable image carrier 14 on the surface, generating a line of image bearing radiation thereby (along the y-y axis); a sensing head 24 for obtaining image data from the line of radiation having a plurality of channels (stored in memory 36, 40 and 42) each channel comprising:

Optics 22; sensor 24 and image processor 32, see figures 2.

What is not taught by Cattorini is the inverting optics.

Cattorini teaches a lens, but it is not clear if the lens 22 is an inverting optical lens. While the focal distance of the lens affects whether the image is inverted or not, it is conceivable that this feature is at lest suggested.

Hokari shows an optical lens 44 for inverting an image. Since lenses are well known in optics for inverting images, it would have been obvious to replace lens 22 of Cattorini with an optical lens, such as 44 of Hokari for inverting images of the image bearing means.

With respect to claims 3, 12 and 24, the CCD is taught by col. 3, lines 42-50 and col. 4, lines 12-15.

With respect to claims 4, 13 and 25, the delay is .3 milliseconds, according to col. 5, lines 15-24.

With respect to claims 6, 15 and 27, the optics having been inverted, in view of Hokari are stored and shifted from 36, 40 and 42, see figure 3. The line widths for the channels are spatially shifted so the integration time per read channel is .3 milli-sec.

With respect to claims 7, 8, 16 , 17, 28 , 29, 34 and 35 the specific magnifications are not disclosed by Cattorini, however, it would have been obvious to adjust the optics of lens 22 to obtain the desired magnification o by the operator of the reading device.

With respect to claims 9 and 30, the transport mechanism is 10 and 16 for urging the carrier past the sensing mechanism.

With respect to claim 10, see the reading apparatus, shown by figure 1 of Cattorini, comprising:

a radiation source 10; a sensing head 24 having a plurality of channels stored in 36, 40 and 42, where each channel comprises: Optics 22; sensor 24 and image processor 32 for accepting the image data obtained from sensing head channels (36, 40 and 42) according the linen of image bearing radiation (light 40), see figures 2. Cattorini also teaches a transport mechanism 16' and 18 for urging the image carrier past the sensing head 24.

What is not taught by Cattorini is the inverting optics.

Cattorini teaches a lens, but it is not clear if the lens 22 is an inverting optical lens. While the focal distance of the lens affects whether the image is inverted or not, it is conceivable that this feature is at lest suggested.

Hokari shows an optical lens 44 for inverting an image. Since lenses are well known in optics for inverting images, it would have been obvious to replace lens 22 of Cattorini with an optical lens, such as 44 of Hokari for inverting images of the image bearing means.

With respect to claims 18 and 22, the adjacent line segments are .3 milli-seconds apart which is nearly contiguous.

With respect to claim 19, the continuous gear and driver 16' and 18 is the equivalent of the continuous belt.

With respect to claim 20, Cattorini teaches a reading apparatus (shown by figure 1) for obtaining a line of image data stored on a surface, comprising:

A radiation source 10 for directing a line of stimulating radiation onto a stimulable image carrier 14 on the surface, generating a line of image bearing radiation thereby (along the y-y axis); a sensing head 24 for obtaining image data from the line of radiation having a plurality of channels (stored in memory 36, 40 and 42) each channel comprising:

Optics 22; sensor 24 and image processor 32, see figures 2 for obtaining first and second head channel data stored in either of 36 with 40 or 36 with 42 or 40 with 42 and forming a line of image bearing radiation in the storage channels 36, 40 and 42..

What is not taught by Cattorini is the inverting optics.

Cattorini teaches a lens, but it is not clear if the lens 22 is an inverting optical lens. While the focal distance of the lens affects whether the image is inverted or not, it is conceivable that this feature is at lest suggested.

Hokari shows an optical lens 44 for inverting an image. Since lenses are well known in optics for inverting images, it would have been obvious to replace lens 22 of Cattorini with an optical lens, such as 44 of Hokari for inverting images of the image bearing means.

With respect to claim 21, the first and second head are separated by .3 milli-seconds.

With respect to claim 31, Cattorini teaches a method for obtainingn a line of image data stored (14) on a surface, comprising:

Emitting via a line of radiation (light source 18) onto a image carrier; generating image data (via sensor 24) ; storing a plurality of images into segments 36, 40 and 42; sensing radiation (by sensor 24) and forming a line (processor 32) according to the output data for congruent images.

What is not taught by Cattorini is the inverting optics.

Cattorini teaches a lens, but it is not clear if the lens 22 is an inverting optical lens. While the focal distance of the lens affects whether the image is inverted or not, it is conceivable that this feature is at lest suggested.

Hokari shows an optical lens 44 for inverting an image. Since lenses are well known in optics for inverting images, it would have been obvious to replace lens 22 of Cattorini with an optical lens, such as 44 of Hokari for inverting images of the image bearing means.

With respect to claim 32, the inverting of the line of segments is not specifically discussed by Cattorini, even though optics 22 may have the affect of inverting images before sensed by sensor 24.

What is not taught by Cattorini is the inverting optics.

Cattorini teaches a lens, but it is not clear if the lens 22 is an inverting optical lens. While the focal distance of the lens affects whether the image is inverted or not, it is conceivable that this feature is at lest suggested.

Hokari shows an optical lens 44 for inverting an image. Since lenses are well known in optics for inverting images, it would have been obvious to replace lens 22 of Cattorini with an optical lens, such as 44 of Hokari for inverting images of the image bearing means.

With respect to claim 33, Cattorini teaches the step of sensing CCD 24, comprising the step of directing (via lens 22) images of inverted line segments to an array of light sensors.

With respect to claim 36, see the drive means 16' and 18 for driving the image bearing means orthogonal to the sensor 24.

With respect to claim 37, Cattorini teaches a method for obtaining an image formed from successive lines of image data stored on a surface comprising the steps of:

Emitting a line of stimulable radiation (light source 10) on to a carrier (film 14); generating image data (CCD 24) from the line of image bearing radiation excited from the image carrier by; sensing radiation of the images via CCD 24, forming a line via processor 32 of the plurality of segments; and urging the surface forward (drive means 16' and 18).

What is not specifically shown is the inverting optics.

What is not taught by Cattorini is the inverting optics.

Cattorini teaches a lens, but it is not clear if the lens 22 is an inverting optical lens. While the focal distance of the lens affects whether the image is inverted or not, it is conceivable that this feature is at lest suggested.

Hokari shows an optical lens 44 for inverting an image. Since lenses are well known in optics for inverting images, it would have been obvious to replace lens 22 of Cattorini with an optical lens, such as 44 of Hokari for inverting images of the image bearing means.

2.

Claims 2, 5, 11, 14 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cattorini in view of Hokari as applied to claim1 above, and further in view of Yang (6,665,012).

With respect to claims 2 , 11 and 23, Cattorini teaches a line illuminator 10 but does not show a laser.

Bang teaches using a laser 101 as a light source.

It would have been obvious to replace the light source 10 with a laser source as taught by Bang, for the illumination of a line of an image bearing member.

With respect to claims 5 and 14, Cattorini teaches all of the subject matter upon which the claim depends except for the specific use of the CMOS type sensor.

While Cattorini does teach a CCD sensor, the use of CMOS sensor are well known in the art.

Yang teaches a CMOS sensor.

Therefore, it would have been obvious to replace sensor 24 of Cattorini with a CMOS type suggested by Yang.

3.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Grant II whose telephone number is 571-272-7463. The examiner can normally be reached on Mon.-Fri. from 9:00-5:00

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Edward Coles be reached on 571-272-7402hone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jerome Grant II/

Primary Examiner, Art Unit 2625